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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,351	09/30/2003	Ye Fang	SP03-121	7131

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CORNING INCORPORATED
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EXAMINER	
VENCI, DAVID J	

ART UNIT	PAPER NUMBER
1641	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/676,351	FANG ET AL.	
	Examiner	Art Unit	
	David J. Venci	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *July 11, 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *11,12 and 16-37* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-37* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *July 11, 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

SCD

DETAILED ACTION

Examiner acknowledges Applicants' reply, filed July 11, 2005, which amended claims 1, 6-10 and 13-15, and added new claims 35-37.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-15 and 35, drawn to a buffered solution, classified in class 435/183, for example.

II. Claims 1, 16-31 and 36-37, drawn to a buffered solution comprising analogs or ligands, classified in class 536/25.3, for example.

III. Claims 32-34, drawn to methods, classified in class 435/6, for example.

Newly submitted claims 36-37 are directed to an invention that is independent and distinct from the invention originally elected and examined for the following reasons:

Inventions I and II are related as subcombination and combination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because a solution comprising a plurality of GTP-analogues or ligands has separate patentability as a pharmaceutical composition, for example. The subcombination has separate utility as protein preservative, for example.

Inventions (I or II) and III are related as products and process of use. The inventions can be shown to be independent and patentably distinct if either or both of the following can be shown: (1) the process for

using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the products can be used to polymerize DNA, for example.

This application contains claims directed to the following patentably distinct species of the claimed invention:

A. Select ONE blocker reagent:

1. Dextran;
2. polyvinyl alcohol;
3. poly(ethylene glycol);
4. poly(anetholsulfate);
5. poly(vinylsulfate);
6. CM-dextran;
7. dextran sulfate;
8. beta-cyclodextrin;
9. poly(acrylic acid);
10. poly(sodium 4-styrene sulfonate);
11. poly-glutamate acid;
12. DNA;
13. BSA;
14. casein;
15. dry milk; OR
16. wheat germ agglutinin.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1, 9, 16 and 25 are generic.

On February 24, 2005, Applicants submitted a response to a requirement for Election/Restiction set forth in Office Action, dated January 24, 2005. Applicants' response included an election of Group I, claims 1-15, and species election of "BSA," readable on claims 1-10 and 14-15.

In Office Action of April 19, 2005, the requirement for Election/Restiction was made FINAL.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-34 and 36-37 remain withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03. Claims 11-12 remain withdrawn from consideration as being drawn to non-elected species. Claim 35 is hereby withdrawn from consideration as being drawn to non-elected species. Examiner acknowledges Applicants' entitlement to examination of the species recited in claims 11-12 and 35 upon indication of allowable subject matter.

Currently, claims 1-10 and 13-15 are under examination.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

The drawings filed July 11, 2005, are accepted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawes & van Biesen, CURRENT PROTOCOLS IN PHARMACOLOGY, Unit 3.5 (1999).

Hawes & van Biesen describe a buffered solution (see p. 3.5.11, REAGENTS AND SOLUTIONS, "*Assay buffer 1*") comprising a buffer reagent with a pH between 6.5 and 7.9 (see p. 3.5.11, REAGENTS AND SOLUTIONS, *Assay buffer 1*, "Tris-Cl, pH 7.4"), a monovalent inorganic salt at a concentration between 1-500 mM (see p. 3.5.11, REAGENTS AND SOLUTIONS, *Assay buffer 1*, "100mM $NaVO_3$"), a divalent inorganic salt at a concentration between 1-500 mM (see p. 3.5.11, REAGENTS AND SOLUTIONS, *Assay buffer 1*, "10mM $MgCl_2$"), and a blocker reagent at a concentration between 0.01% to 2% (see p. 3.5.11, REAGENTS AND SOLUTIONS, *Assay buffer 1*, "0.1 mg/ml BSA").

With respect to claim 6, Hawes & van Biesen describe a buffered solution further comprising a labeled ligand (see p. 3.5.11, REAGENTS AND SOLUTIONS, *ATP mix*, "[γ-^{32}P]ATP") and a target compound (see p. 3.5.5, DETECTION OF TRANSPHOSPHORYLATION OF EXOGENOUS SUBSTRATES, *Materials*, "angiotensin II peptide").

Claim Rejections - 35 USC § 103

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawes & van Biesen, CURRENT PROTOCOLS IN PHARMACOLOGY, Unit 3.5 (1999), in view of Boehringer Mannheim Corp., *1998 Biochemicals Catalog*, pp. 486-493 (1998).

Hawes & van Biesen describe a buffered solution as described supra. Hawes & van Biesen also describe a buffered solution comprising a protease-inhibitor (see p. 3.5.13, *Critical Parameters*, second paragraph, "protease inhibitors in the lysis and assay buffers", see Table 3.5.3).

Hawes & van Biesen do not teach a specific concentration of 0.001-100 mM used for the protease-inhibitor.

However, Boehringer Mannheim Corp. teaches a protease-inhibitor concentration of 0.001-100 mM (see pp. 486-487, *Suggested Starting Concentrations*). Therefore, it would have been obvious for a person of ordinary skill in the art to provide the buffered solution of Hawes & van Biesen with a protease-inhibitor concentration of 0.001-100 mM because Hawes & van Biesen instruct readers to use protease inhibitors from Boehringer Mannheim Corp. and Boehringer Mannheim Corp. explicitly suggests protease-inhibitor concentration of 0.001-100 mM.

Double Patenting

Claims 1-5, 7-10 and 13-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-5 and 10-12 of copending Application No. 10/651554. Although the conflicting claims are not identical, they are not patentably distinct from each other because copending Application No. 10/651554 also claims a buffered solution comprising a buffer reagent (see claim 1, "pH buffer reagent") with a pH between 6.5 and 7.9 (see claim 1, "pH from about 5.8 to about 7.8"), a monovalent inorganic salt at a concentration between 1-500 mM (see claim 1, "monovalent or divalent, inorganic salt at a concentration of bout 1mM to about 500mM"), a divalent inorganic salt at a concentration between 1-500 mM (see claim 1, "monovalent or divalent, inorganic salt at a concentration of bout 1mM to about 500mM"), a blocker reagent at a concentration between 0.01% to 2% (see claim 1, "water-soluble protein at a concentration of about 0.01% to 3%", see claim 11, "bovine

serum albumin"), and a protease-inhibitor (see claim 1, "protease inhibitor at a concentration of bout 0.01 mM to about 100 mM").

Claim 6 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-5 and 10-12 of copending Application No. 10/651554 in view of Hawes & van Biesen, CURRENT PROTOCOLS IN PHARMACOLOGY, Unit 3.5 (1999).

Application No. 10/651554 claims a buffered solution as substantially described supra. Application No. 10/651554 does not claim a labeled ligand or a target compound.

However, Hawes & van Biesen describe a buffered solution comprising a labeled ligand (see p. 3.5.11, REAGENTS AND SOLUTIONS, *ATP mix*, "[γ-^{32}P]ATP") and a target compound (see p. 3.5.5, DETECTION OF TRANSPHOSPHORYLATION OF EXOGENOUS SUBSTRATES, *Materials*, "angiotensin II peptide"). Therefore, it would have been obvious for a person of ordinary skill in the art to provide the buffered solution as claimed in Application No. 10/651554 with the added ingredients of a labeled ligand or a target compound because Hawes & van Biesen teach buffered solutions containing a labeled ligand and a target compound can be used to detect and quantify tyrosine kinases that mediate the enzymatic transfer of the γ phosphate of ATP to the phenolic groups of tyrosine residues (see p. 3.5.1).

These are provisional obviousness-type double patenting rejections.

Response to Arguments

In prior Office Action, claims 1-10 and 13-15 were rejected under 35 U.S.C. 112, second paragraph, for various reasons. Applicants' clarifying amendments and/or argumentation are persuasive and sufficient to overcome these rejections. Accordingly, these rejections are withdrawn.

In prior Office Action, claims 1-10 and 13-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hawes & van Biesen, CURRENT PROTOCOLS IN PHARMACOLOGY, Unit 3.5 (1999), in view of Boehringer Mannheim Corp., *1998 Biochemicals Catalog*, pp. 486-493 (1998). In response, Applicants have amended the preamble of claim 1 to add language describing the intended use of Applicants' invention. Alternatively, Applicants have attempted to obtain examination of claims drawn to a kit, which is independent and patentably distinct from the claims previously claimed and examined. Regardless, no patentable weight is afforded this added language.

In prior Office Action, claims 1-10 and 13-15 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable in view of claims 1, 4-5 and 10-12 of copending Application No. 10/651554. In response, Applicants argue that claims 1, 4-5 and 10-12 of copending Application No. 10/651554 are directed to "reformulations of biological membranes for the fabrication of membrane arrays". Applicants' argument has been carefully considered but is not persuasive because each and every limitation of Applicants' instant invention, as claimed, is supported in claims 1, 4-5 and 10-12 of copending Application No. 10/651554.

Conclusion

No claims are allowed at this time.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Venci whose telephone number is 571-272-2879. The examiner can normally be reached on 08:00 - 16:30 (EST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

David J Venci
Examiner
Art Unit 1641

djv

LONG V. LE
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09/18/05